

WHAT IS CLAIMED IS:

1. An insert comprising:
 - a clamping member; and
 - a basic form of parallelogram or rectangle that is

5 detachably mounted by said clamping member on a tip mounting face of a holder, wherein

two or more concave grooves are formed like parallel stripes on said tip mounting face of said holder;

two or more convex lines are formed on a abdominal face

10 thereof to be fitted in said concave grooves;

said insert is clamped by said clamping member in a state where a convex lines thereof are fitted in the concave grooves on said tip mounting face;

said clamping member as a screw clamp structure fixes

15 said insert by tightening a clamp screw through a screw insertion hole thereof into a female thread hole on said tip mounting face; and

a convex line missing part is provided in a region including the periphery of an opening edge of said screw insertion hole

20 and opposed to said tip mounting face of said holder, in which said tip mounting face and said convex line missing part are out of contact at least before tightening said clamp screw.
2. The insert according to claim 1, wherein

25 the number of said convex lines is from three to five.

3. The insert according to claim 1, wherein
said one screw insertion hole is formed in the center
of parallelogram or rectangle, and
5 said insert is tightened by one clamp screw.

4. The insert according to claim 1, further comprising:
a step portion is formed on an abdominal face thereof
in a direction crossing said convex lines, wherein
10 said insert is positioned in such a manner that said step
portion is engaged in an engagement step portion provided on
said holder.

5. The insert according to claim 1, wherein
15 said insert is used for the cutting-off or grooving work.

6. The insert according to claim 1, wherein
a dimple groove for cutting work is provided on a knife
edge rake face.

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7. A holder comprising:

a clamping member; and

a tip mounting face,

said holder holding an insert that is detachably mounted

5 by said clamping member on said tip mounting face thereof,

wherein

two or more concave grooves are formed like parallel stripes on an abdominal face of said insert;

10 two or more convex lines are formed on a tip mounting face thereof to be fitted in said concave grooves, in which said insert is clamped by said clamping member in a state where said concave grooves of said insert are fitted in said convex lines on said tip mounting face;

15 said clamping member as a screw clamp structure fixes said insert by tightening a clamp screw through a screw insertion hole of said insert into a female thread hole on its own tip mounting face; and

20 a convex line missing part is provided in a region including the periphery of an opening edge of said screw insertion hole and opposed to said insert, in which said insert and said convex line missing part are out of contact at least before tightening the clamp screw.

8. The holder according to claim 7, wherein

25 the number of said convex lines is from three to five.

9. The holder according to claim 7, wherein
one female thread hole is formed in the center of said
tip mounting face, and

5 said insert is tightened by one clamp screw.

10. The holder according to claim 7, wherein
an engagement step portion is formed in a direction
crossing said convex lines, and

10 said insert is positioned in such a manner that a step
portion provided on an abdominal face of said insert is engaged
in said engagement step portion.

11. The holder according to claim 7, wherein
15 said insert is used for the cutting-off or grooving work.

12. The cutting tool, further comprising:
an insert according to claim 1 held in a holder.

20 13. The cutting tool, further comprising:
an insert held in a holder according to claim 7.